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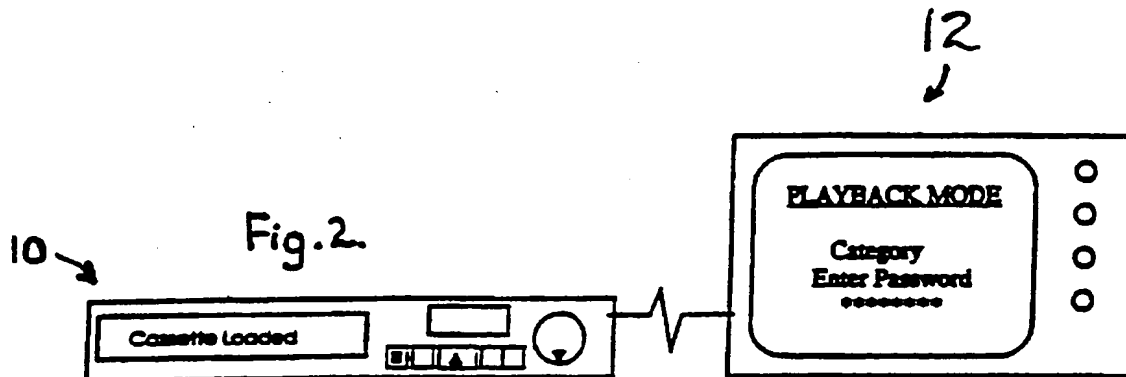
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GB 2256116 A GB 2209427 A GB 2209417 A
EP 0596282 A2 EP 0112575 A1 WO 90/13118 A1

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(54) A method and/or apparatus for restricting access to a video recording or broadcast

(57) The disclosure relates to an apparatus for restricting a child's access to a video recorder or satellite TV receiver wherein passwords corresponding to the programs rating are required to operate the apparatus. The apparatus may also be used to restrict access to multi-media systems and video games.



GB 2 290 407 A

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

Fig.1.

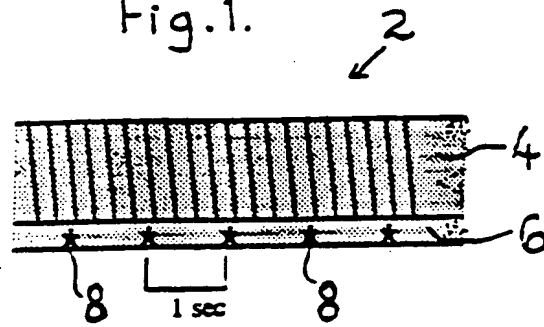
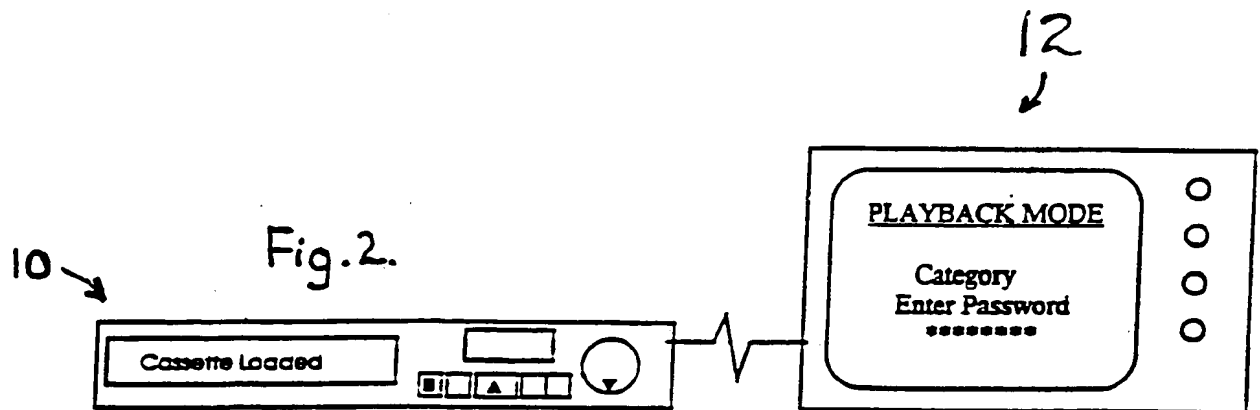


Fig.2.



- 1 -

SECURITY DEVICE

This invention relates to a security device. Particularly, although not exclusively, the invention relates to a security device for an apparatus associated with the reproduction of an image, for example a television set or a video cassette recorder, an apparatus associated with the reproduction of an image per se, a method of restricting access to such an apparatus and a conveying means, for example, a video cassette, for such an apparatus.

It has long been appreciated that certain television programmes are unsuitable for some categories of people, for example young children. With a view to reducing the risk of a young child watching an unsuitable programme, certain programmes may only be transmitted in the United Kingdom after 9 p.m. However, it will be appreciated that such measures do not prevent a child watching an unsuitable programme, particularly if the child is unsupervised.

Similarly, it has also long been appreciated that certain films are unsuitable for some categories of people and, in view of this, films are classified according to their suitability. For example, in the United Kingdom, a film classified "U" is suitable for all people; a film classified "PG" indicates that "parental guidance" is called for to assess whether the film is suitable for a particular person; and films classified as "12", "15" and "18" are suitable for people aged at least 12, 15 and 18 respectively.

Video cassettes of films are now widely available. Although a video cassette comprising a film of a

particular category can only legally be sold/rented to a person for whom the film is deemed suitable, it is very easy for an unsuitable film to fall into the hands of a person for whom the film is deemed unsuitable.

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Similarly, there are certain video games which are unsuitable for young children and which, therefore, should preferably not be available for play by such young children.

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It will be appreciated from the above discussion that there is a problem in restricting access to inappropriate material. It is an object of the present invention to address this problem.

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According to the invention, there is provided a security device for an apparatus associated with the reproduction of an image, said device being arranged to receive a signal conveyed by a conveying means and to control operation of the apparatus in dependence upon the signal received and in dependence upon the input into the device of an admissible operation means.

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Said apparatus associated with the reproduction of an image may be arranged to reproduce an image on a display device, for example a screen. Said apparatus may be a video cassette player, a laser disc player, a multi-media player, a television set, a video game playing device, a computer game playing device or the like.

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Said apparatus is preferably associated with the reproduction of moving images. Said apparatus is preferably associated also with the reproduction of sound.

Said signal which the device is arranged to receive is preferably an electronic signal. The signal preferably encodes information relating to the suitability of the images conveyed by the conveying means. The suitability of the images may be classified in one of a plurality of categories. The signal is suitably arranged to encode information in order to distinguish one category selected from a plurality, preferably three or more, possible categories.

The conveying means is preferably arranged to convey both said signal and a reproduction means by which the apparatus may reproduce an image and/or sound. The conveying means may comprise a record means on which information from which said image may be produced is recorded, or may comprise a broadcast means for broadcasting an image.

Preferred record means include tape, for example video tapes or computer games tapes or cartridges, discs, for example laser discs or computer discs, and ROM devices.

Preferred broadcast means include terrestrial broadcasts, satellite broadcasts and cable broadcasts.

Preferably, an admissible operation means is defined according to said signal conveyed by the conveying means. For example, a said signal conveyed by a conveying means in the form of a video tape may indicate that a film of category "18" is recorded on the tape. In this event, a first admissible operation means, for example a first password, will need to be inputted into the device in order to view the film. Alternatively, the said signal conveyed may indicate that a film of category "15" is

recorded on the tape, in which case a second admissible operation means (which may be different from said first admissible operation means), for example a second password, will need to be inputted into the device in order to view the film.

Additionally, admissible operation means may be defined by an authorised operator. In this case, said admissible operation means may comprise a pass-code, for example a password. The device may be arranged so that an authorised operator can define said admissible operation means, for example a pass-code, by inputting information into said device. A user must then, in order to view, for example a film, input the admissible operation means as defined by the authorised operator. By restricting dissemination of the admissible operation means to selected people, for example adults but not children, the authorised operator can restrict operation of the image reproduction apparatus.

The invention extends to an apparatus associated with the reproduction of an image in combination with a security device as described herein.

The apparatus suitably includes an input means for input into said security device of an admissible operation means. Said apparatus suitably also includes an input means by which an authorised operator may define said admissible operation means.

The invention extends to a method of restricting access by a person to an apparatus associated with the reproduction of an image, the method using a security device as described herein.

The method preferably includes the step of an authorised operator defining one or a plurality of admissible operation means for the device and restricting access to said admissible operation means.

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The invention extends to a conveying means for an apparatus associated with the reproduction of an image, the conveying means including a signal arranged to be received by a security device as described above.

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Specific embodiments of the invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

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Figure 1 is a schematic representation of a part of a video tape; and

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Figure 2 is a schematic representation of a video cassette recorder and an associated television monitor.

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In one embodiment, the playing of a film pre-recorded on a video cassette may be restricted. To this end, a video cassette player for playing the video cassette is generally of standard design. However, the player is arranged to recognise signals recorded on the video cassette which signals provide details relating to the category of film recorded. Additionally, the video cassette player includes a password system which is arranged to prevent the playing of a film of a particular category unless an operator correctly inputs a predefined password into the player.

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Thus, a parent or guardian may define the passwords that must be inputted into the player for films of particular categories to be played and, accordingly, by

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not disclosing passwords for selected categories of films to a child, the parent or guardian will be able to prevent the child watching films which fall within the selected categories.

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The arrangement is now described in more detail.

10 An operator firstly must define the passwords. In this respect, the video cassette player is arranged to initially issue prompts to the operator requesting the operator to define passwords for the various different categories of films. The player may prompt the definition of respective passwords for the categories. "Universal", "PG", "12", "15" and "18". The operator may define no password for a particular category, thereby effectively allowing full access to all films of the category. For example, the operator may define no password for the categories "Universal" and "PG". Additionally, the operator may define a password for one or more of the categories. For example, the operator may define a respective password for each of the categories "12", "15" and "18" or may define a single password to allow access to all of these categories.

25 Once the passwords have been defined, they may be divulged by the operator, to children, as appropriate.

Reference is now made to Figures 1 and 2.

30 A video cassette includes a film recorded on video tape 2, as shown in Figure 1. The tape 2 includes a picture track 4 and an audio track 6. On the audio track 6, signals 8 are recorded at one second intervals. The signals 8 include details relating to the category of the

film recorded and are arranged to be recognised by the video cassette player.

5 In use, a video cassette including tape 2 having
signals 8 thereon is loaded into a video cassette player
10 (Figure 2) wherein the passwords for the categories of
films have been defined in the manner described above. The
video cassette player is then switched to "playback" mode.
After a short time, the video cassette player ascertains
10 from signals 8 the category of film that has been loaded
and this is displayed on the television screen 12. In the
example shown in Figure 2, a category "18" film has been
loaded. The entry of a password is then requested and the
player will not play the film until the correct password
15 has been entered. Thus, it will be appreciated that unless
a young child is advised of the password for a category
"18" film, then the child will not be able to watch such
a film.

20 The video cassette player is suitably arranged so
that the input of a password for one category of film
allows access to all lower categories of film. For
example, the input by a user of the password for a
category "15" film will allow the user to watch films of
25 categories "12", "PG" and "Universal".

Since signals 8 are recorded on tape 2 at short
intervals, the video cassette player may continuously
monitor the category of the material recorded. If, for
30 example, the video cassette includes material of category
"15" followed by material of category "18", then the
player may be arranged to stop before playing the category
"18" material until an appropriate password is inputted.

Although the signal 8 is described as being associated with the audio track 6 on tape 2, it may be encoded in any appropriate manner on the tape.

5 Although it is preferred to use a password, any type of code may be used to control access to the system.

10 The above described system may be modified so as to restrict access to broadcasts, for example broadcasts relayed terrestrially, by satellite or by cable. In this case, the broadcast itself includes a signal which provides details relating to the category of material being broadcast at a particular instant in time. The receiver of the broadcast, for example a television or
15 satellite or cable controller, is arranged to recognise the broadcast signals and restrict viewing of the broadcast unless an appropriate password is inputted.

20 Additionally, a video cassette player may also be arranged so that, when a broadcast is being recorded, signals 8 are also recorded by the recording heads onto the tape. Consequently, subsequent viewing of the recorded broadcast will require an appropriate password to be inputted into the player, in the manner described above.

25 The above described system may be arranged to restrict access to any apparatus or device adapted to reproduce images. For example, the system may be adapted for use with laser discs or multi-media systems.
30 Additionally, the system may be adapted to restrict access to computer games.

35 The reader's attention is directed to all papers and documents which are filed concurrently with or previous to this specification in connection with this application and

which are open to public inspection with this specification, and the contents of all such papers and documents are incorporated herein by reference.

5 All of the features disclosed in this specification (including any accompanying claims, abstract and drawings), and/or all of the steps of any method or process so disclosed, may be combined in any combination, except combinations where at least some of such features
10 and/or steps are mutually exclusive.

Each feature disclosed in this specification (including any accompanying claims, abstract and drawings), may be replaced by alternative features serving
15 the same, equivalent or similar purpose, unless expressly stated otherwise. Thus, unless expressly stated otherwise, each feature disclosed is one example only of a generic series of equivalent or similar features.

20 The invention is not restricted to the details of the foregoing embodiment(s). The invention extends to any novel one, or any novel combination, of the features disclosed in this specification (including any accompanying claims, abstract and drawings), or to any
25 novel one, or any novel combination, of the steps of any method or process so disclosed.

CLAIMS

1. A security device for an apparatus associated with the reproduction of an image, said device being arranged
5 to receive a signal conveyed by a conveying means and to control operation of the apparatus in dependence upon the signal received and in dependence upon the input into the device of an admissible operation means.

10 2. A device according to Claim 1, the device being arranged to receive an electronic signal which encodes information relating to the suitability of the images conveyed by the conveying means for viewing by selected
15 categories of people.

3. A device according to Claim 1 or Claim 2, wherein the signal is arranged to encode information in order to distinguish one category selected from a plurality of possible categories.

20 4. A device according to any preceding claim, wherein the conveying means is arranged to convey both said signal and a reproduction means by which the apparatus may reproduce an image.

25 5. A device according to any preceding claim, wherein the conveying means comprises a record means on which information from which said image may be produced is recorded.

30 6. A device according to Claim 5, wherein said record means is selected from a tape, a cartridge, a disc and an ROM device.

7. A device according to any of Claims 1 to 5, wherein said conveying means comprises a broadcast means for broadcasting an image.

5 8. A device according to Claim 7, wherein said broadcast means is selected from a terrestrial broadcast means, a satellite broadcast means and a cable broadcast means.

10 9. A device according to any preceding claim, wherein an admissible operation means is arranged to be defined according to a signal conveyed by the conveying means.

15 10. A device according to Claim 9, wherein said admissible operation means is arranged to be defined by an authorised operator.

11. A device according to Claim 9 or Claim 10, wherein said admissible operation means comprises a pass-code.

20 12. A device according to Claim 10 or Claim 11, the device being arranged so that an authorised operator can define said admissible operation means by inputting information into said device.

25 13. An assembly comprising an apparatus associated with the reproduction of an image in combination with a security device according to any of Claims 1 to 12.

30 14. An assembly according to Claim 13, including input means for input into said security device of an admissible operation means.

15. An assembly according to Claim 13 or Claim 14, wherein said apparatus includes an input means by which an

authorised operator may define said admissible operation means.

5 16. A method of restricting access by a person to an apparatus associated with the reproduction of an image, the method using a security device according to any of Claims 1 to 12.

10 17. A method according to Claim 16, including the step of an authorised operator defining one or a plurality of admissible operation means for the device and restricting access to said admissible operation means.

15 18. A conveying means for an apparatus associated with the reproduction of an image, the conveying means including a signal arranged to be received by a security device according to any of Claims 1 to 12.

20 19. A device substantially as hereinbefore described with reference to the accompanying diagrammatic drawings.

20. An assembly substantially as hereinbefore described with reference to the accompanying diagrammatic drawings.

25 21. A method substantially as hereinbefore described with reference to the accompanying diagrammatic drawings.

30 22. A conveying means substantially as hereinbefore described with reference to the accompanying diagrammatic drawings.

Relevant Technical Fields

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(ii) Int Cl (Ed.6) G11B 15/02, 20/00, 23/28; H04N 5/91, 7/16

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Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

(ii) ONLINE: WPI

Documents considered relevant
following a search in respect of
Claims :-
1-22

Categories of documents

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- A: Document indicating technological background and/or state of the art. &: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages		Relevant to claim(s)
X	GB 2256116 A	(SAMSUNG) see whole document	1-22
X	GB 2209427 A	(VOGEL) see whole document	1-4, 7-22
X	GB 2209417 A	(VOGEL) see whole document	1-22
X	EP 0596282 A2	(GRUNDIG E.M.V.) see whole document	1-6, 9-22
X	EP 0112575 A1	(ERIENWEG) see whole document	1-4, 7-22
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